

AMERICAN BEE JOURNAL



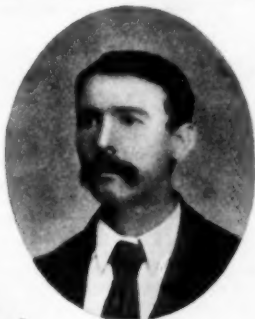
GEORGE W. YORK,
Editor.

CHICAGO, ILL., SEPTEMBER 26, 1901.

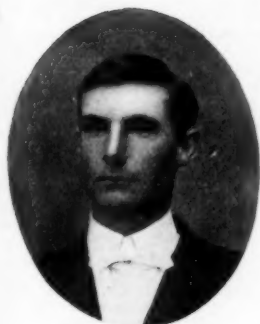
FORTY-FIRST YEAR
No. 39.

WEEKLY

Officers of the Texas State Bee-Keepers' Association.



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THE AMERICAN BEE JOURNAL

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PROF. A. J. COOK, }

IMPORTANT NOTICES.

The Subscription Price of this Journal is \$1.00 a year, in the United States, Canada, and Mexico; all other countries in the Postal Union, 50 cents a year extra for postage. Sample copy free.

The Wrapper-Label Date of this paper indicates the end of the month to which your subscription is paid. For instance, "dec01" on your label shows that it is paid to the end of December, 1901.

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Advertising Rates will be given upon application.

National Bee-Keepers' Association

OBJECTS:

To promote and protect the interests of its members.
To prevent the adulteration of honey.
To prosecute dishonest honey-dealers.

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A Celluloid Queen-Button is a very pretty thing for a bee-keeper or honey-seller to wear on his coat-lapel. It often serves to introduce the subject of honey, and frequently leads to a sale.



NOTE.—One reader writes: "I have every reason to believe that it would be a very good idea for every bee-keeper to wear one [of the buttons] as it will cause people to ask questions about the busy bee, and many a conversation thus started would wind up with the sale of more or less honey; at any rate it would give the bee-keeper a superior opportunity to enlighten many a person in regard to honey and bees."

The picture shown herewith is a reproduction of a motto queen-button that we are furnishing to bee-keepers. It has a pin on the underside to fasten it.

Price, by mail, 6 cents; two for 10 cents; or 6 for 25 cents. Send all orders to the office of the American Bee Journal.



No. 4 "Barler Ideal" Oil-Heater.

The "Barler Ideal" OIL-HEATER....

**Saves Its Cost Every Year!
NO ODOR! NO SMOKE! NO ASHES!**

Costs only a cent an hour to run it.

The editor of the American Bee Journal is using the "Barler Ideal" Oil Heater, and it is all right in every way. We liked it so well that we wanted our readers to have it too, so we have recently arranged with its manufacturers to fill our orders. The picture shown herewith is the one we recommend for general use. It is a perfect gem of a stove for heating dining-rooms, bed-rooms, and bath-rooms. It hinges back in a substantial way, and is thoroughly well made thruout. The urn removes for heating water. The brass fount, or well, has a bail, and holds nearly one gallon of kerosene oil. It is just as safe as an ordinary lamp. You wouldn't be without it for twice its cost, after once having one of these stoves. Most oil-stoves emit an offensive odor, but this one doesn't. Its height is 2½ feet, and weighs 20 pounds, or 30 pounds crated ready for shipment, either by freight or express.

Price, f.o.b. Chicago, \$6.00; or, combined with a year's subscription to the American Bee Journal—both for only \$6.50. FULL DIRECTIONS GO WITH EACH STOVE.

If you want something that is really serviceable, reliable, and thoroly comfortable, you should get this "Barler Ideal" Oil Stove, as it can easily be carried by any woman from one room to another, and thus have all the heat you want right where you want it.

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Please Mention the Bee Journal when writing Advertisers....

The Novelty Pocket-Knife.

Your Name and Address on one side—Three Bees on the other side.



[THIS CUT IS THE FULL SIZE OF THE KNIFE.]

Your Name on the Knife.—When ordering, be sure to say just what name and address you wish put on the Knife.

The Novelty Knife is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed the name and residence of the subscriber, and on the other side pictures of a Queen, Drone, and Worker, as shown here.

The Material entering into this celebrated knife is of the very best quality; the blades are hand-forged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring-steel, and the finish of the handle as described above. It will last a last-time, with proper usage.

Why Own the Novelty Knife? In case a good knife is lost, the chances are the owner will never recover it; but if the "Novelty" is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the "Novelties," your POCKET-KNIFE will serve as an identifier; and in case of death, your relatives will at once be notified of the accident.

How appropriate this knife is for a present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, or a lady to a gentleman, the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid for \$1.25, or give it as a Premium to the one sending us THREE NEW SUBSCRIBERS to the Bee Journal (with \$3.00). We will club the Novelty Knife and the Bee Journal for one year, both for \$1.90.

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Please allow about two weeks for your knife order to be filled.

ESTABLISHED IN 1861 AMERICAN THE OLDEST BEE-PAPER IN AMERICA BEE JOURNAL

41st YEAR.

CHICAGO, ILL., SEPTEMBER 26, 1901.

No. 39.

* Editorial. *

Bees and Pear-Blight.—The fruit and bee men of California seem to be sensible enough to get along without quarreling and lawing, and certainly some of the bee-men show an excellent spirit. They have agreed to move their bees away from the pear orchards during the blooming period, so as to help solve the question whether the bees are the chief criminals. The views of some of the scientific men are given in *Gleanings in Bee-Culture*. Prof. Waite seems inclined to pass judgment against the bees, but at the same time considers them a necessary evil, for he says he has found as the result of an extensive series of experiments "that bees are indispensable to the pollination and setting of most of our pomaceous fruits." Prof. Cook says:

"I have little doubt that bees do aid in scattering the virus; but I am far from convinced that their removal will abate the trouble, or is wise and necessary."

Prof. Gillette thinks it will be a considerable time before we can draw any positive conclusions. He thinks that if the bees were the chief operators the late varieties of pears should suffer more from blight than the early ones, and he has not observed this to be the case.

"Honey Without Bees."—Dr. R. H. Strickland, of Perry Co., Tenn., sends us the following, which appeared in an advertisement taken "from a scientific (?) quasi-medical journal":

HONEY WITHOUT BEES.

This is an age of marvelous discoveries and inventions. Every day brings forth something new, and every year is marked by some astounding discovery which completely upsets all preconceived notions in some department of knowledge or industry. Marvelous discoveries have been made in electricity and the uses of steam and the utilization of the various forces of nature, but a discovery which is really more far-reaching in its results, and perhaps capable of immediately benefiting a larger number of persons, is a process worked out by an eminent physician by years of laboratory research, whereby it is possible to make honey directly from wheat and other cereals without the aid of chemicals of any sort, and by a process essentially identical with that by which honey is manufactured by plants ready to be collected and stored by the cunning little feet of the honey-bee.

Malt honey, or meltose, looks like honey, tastes like honey, in chemical composition is essentially the same as honey, and as a food is superior to honey, since it is free from germs, pollen, fragments of flowers, dust, and other foreign matters, and may be eaten without in-

jurious effects, even by most delicate individuals, whereas many persons can not eat honey, even in small quantities, without experiencing ill effects. *Malt honey is genuine honey; not an imitation or a substitute, but the real thing, derived from the original source—the plant—but without the assistance of bees, and by a process which renders it absolutely pure and wholesome. It is the only sweet which can be eaten in liberal amounts without injurious effects.*—[Italics are ours.—Ed.]

We feel a just pride in the perfection of this very remarkable and useful product, after spending some years and thousands of dollars in research for the purpose.

Dr. Strickland says in his letter accompanying the foregoing, "It may not be worth noticing." Well, it certainly wouldn't be "worth noticing" were it not for the manner in which the thing is described and advertised.

If its discoverer doesn't know any more about food products than he does about the way bees gather and store honey, he is truly a fine specimen of ignoramus. Think of bees collecting and storing the nectar of flowers with their "cunning little feet!" If that were true, they ought to store about six times as much as they do, as they have six times as much feet as tongue. If this learned (?) food inventor were right, bee-keepers would be breeding for more and longer feet than for longer tongue-reach in their bees.

Well, we secured a sample of the wonderful (?) "meltose" that is said "looks like honey, tastes like honey, and in chemical composition is essentially the same as honey," etc. If honey were like it, we would care for no more honey. It has a taste (to us) almost like sorghum molasses, is thick and cloudy, resembling in appearance a poor quality of glue or mucilage. If we were to put up for the Chicago grocery trade stuff like it, and call it honey, we would expect to kill our trade on the first round among our customers. And yet, the great inventor of "meltose" says it is "genuine honey"—"the real thing!" True, he says bees had nothing to do with its manufacture—and we believe him. Bees wouldn't degrade themselves by turning out a product like "meltose"—not from the blossoms of white clover, basswood, sweet clover, etc. The idea of man claiming he can make honey equal, or superior, to that produced by bees! (Of course we mean the best grade of extracted honey, not honey-dew.)

From the glowing advertisement of "meltose," one might be led to think it is a sort of comb honey. It isn't. It is simply an imitation of extracted honey, and we consider it a poor one at that.

We do not say that meltose has no valuable food qualities—we know nothing about that part of it. What we object to, is the claim that the stuff is the "same as honey" (bee-

honey), "the real thing," etc. Also, the attempt to prejudice the public against genuine bee-honey, by claiming that it contains injurious "germs, pollen, fragments of flowers, dust, and other foreign matters," deserves to be severely condemned. No honorable man or firm would do that.

It's a pretty safe thing to shun people who claim they have "genuine honey" that was produced "without bees!"

Sugar for Bee-Feed.—For years a difference of opinion has prevailed as to the best kind of sugar to use in feeding bees. Those who are supposed to know tell us that granulated sugar made from beets is identical with that made from sugar-cane. But things that are identical from a chemical standpoint are not always the same, as witnessed by the familiar instance of diamond and charcoal; and across the ocean it has been earnestly insisted that sugar from beets was unfit for bees, and that cane-sugar alone should be used. If it were easy to be sure of getting cane-sugar, the safe thing would be to use that alone, but one can not be sure of what granulated sugar is made, and the amount of beet-sugar is all the time on the increase. Since we are in a manner forced to use what is very likely to be beet-sugar, we may take some comfort from the experience of Editor Root, remembering that the proof of the pudding is the eating. He says in *Gleanings in Bee-Culture*:

Personally I do not have any uneasy feeling about the sugar question. It is not proper for us to boast; but for the last 10 or 12 years we have used beet-sugar for feeding our bees; and if any one can show a higher wintering average than we—one who has used cane-sugar—we should like to have him hold up his hand. Our wintering losses very often do not exceed 2 percent, and the very highest is 15 percent, I believe. This covers a period of about 20 years. I suppose a fair average would be between 3 and 4 percent. If Mr. Morrison is correct, the beet-sugar is better than cane. But my honest impression is that, with either sugar, we shall get good results. The trouble from sugar-fed colonies is more because the syrup is fed too late or too thick, and the bees do not have opportunity to ripen it. If it is fed during warm weather, when they can fly, half and half, other things being what they ought to be, I would not give two cents to have the colonies insured.

A New Honey-Plant is announced every now and then, and at different times there has been a sounding of trumpets over some new plant that was to be kept by the acre and give wondrous yield, as, for instance, the Simpson honey-plant, figwort, and Chapman honey-plant. Acres of ground were planted with these, and at the instigation of bee-men the Government made an appropria-

tion to distribute the seed of one of them, but at the present day little is heard of them, and it is not likely that any one considers it advisable to make a plantation of either of them.

It seems pretty well settled that to make it profitable to occupy tillable land with any honey-plant, that plant must have a value aside from its honey-yielding properties. Hopeless as the case may be considered with regard to any plant for honey alone, there is always a possibility of the discovery of some plant of value for other purposes which has the additional value of being a honey-yielder. Even the remote possibility of such a thing makes it worth while to experiment with a large number in the hope that out of the many there may be found one that will be profitable.

In the National Stockman and Farmer, the winter or hairy vetch receives high praise as a plant for feeding and other purposes, but no mention is made of its honey-yielding qualities. In a late number of that excellent farm journal J. A. Macdonald speaks upon that point after this wise:

Some months ago I made mention of the winter or hairy vetch in an article in the National Stockman and Farmer, but in mentioning many of its various points of value, as a soiling plant, pasture plant, manurial value, etc., I did not observe that this vetch was a splendid honey-plant, and that clover does not begin to compare with it in this regard, for the reason that the time of bloom of clover is comparatively short beside hairy vetch. I wonder if any of your readers have noticed this new value of this vetch; if they have, they have taken very good care to keep the information to themselves. Your valued correspondent, Mr. Lighty, and a bee-man, too, has spoken, in your columns, of the many valuable attributes of the hairy vetch, but I, at least, have failed to see any mention by him of the honey-yielding qualities of the plant, and I would now ask him to say if he ever noticed this point of value.

First, let me say that there is no more beautiful sight than to look upon a field of hairy vetch in its full purple bloom, and this view presents itself for a very long time, and this is why such a remarkably fine honey-plant, supplying nectar to the bees for weeks. You see this vetch, when sown in spring, is very tardy in maturing seed, but continues to put forth new bloom from week to week, and a bloom which the bees are exceedingly fond of. On a patch of this vetch sown May 10, I notice bloom about the first week in July, but it was not until three weeks later, or the last week in July, that it appeared in full bloom, and still at this date (Aug. 9) it is showing a brilliant bloom, though pods are maturing on the lower portions of the plants. For the last ten days the plants are literally covered with bees. A few days ago I tried to estimate the number of bees flitting from bloom to bloom, and as far as I could reckon there was an average of ten bees to the square yard, that is, in the immediate vicinity of the particular spot where I was standing. Some say there are no more than four or five bees working to the square yard, but no matter what time of the day I go into that vetch patch (which, by the way, we are cutting for partial soiling of cows and pigs), there are lots of bees working industriously.

Hairy vetch is a wonderful plant indeed, so many points of value has it. As a soiling plant mixed with a little oats it's a wonder, and ahead of anything I ever saw. Peas don't begin to compare with it at all. As a pasture for swine it is fine, and though I never cured any of it for hay, I can not but believe it must be good for this purpose, too. As a spring crop with me it is ahead of a winter crop, and produces about seven tons of green forage per acre, and lastly comes its wonderful value as a honey-plant. I wish bee-men everywhere would give the plant a trial for its honey-giving qualities; and I would greatly wish to hear from those who have the

hairy vetch growing to report its value in this regard.

Now in the hands of others this plant may or may not be found of value. The probability is that in some localities it will deserve the kind words with which Mr. Macdonald speaks of it, while in others it will be of little value. But the possibilities in the case warrant a thorough trial on a small scale. Its long period of bloom, and its continuance in bloom after white clover is done are special points in its favor wherever it is found to be a success.

Has any one of our readers had any experience with the plant? Has any one any further knowledge of it? If so, let us have all the light possible about it.

Weekly Budget.

PRESIDENT WILLIAM MCKINLEY—the most widely respected and honored president of the United States in two decades—was shot down by an anarchistic demon in human form, while he was holding a reception at the Pan-American Exposition at Buffalo, Sept. 6. The terrible wounds resulted in his death early Saturday morning, Sept. 14.

Of course, this is no news to the most of our readers, as the daily press has been crowded for almost two weeks with columns upon columns of matter bearing on this awful event. It is almost too sad and terrible to write about. There should be no room for a single anarchist in this "land of the free and home of the brave." We strongly favor the suggestion that all the anarchists in this country be exiled to two high-walled islands of the sea, the men to be assigned to one island, and the women to the other. Give them sufficient to eat as long as they live. After that the "breed" would be at an end.

We have not the slightest sympathy for those who would shoot down any one placed in official position, and the sooner such dastardly cowards are humanely and effectually disposed of the better for all concerned.

GETTING LATE FOR QUEEN-ORDERS.—On account of the season getting late—cool weather, etc.—we wish to announce that we will be unable to accept any more queen-orders to be filled this season. We appreciate very much the queen-patronage that has been extended to us this year, and trust that it may continue next season. We also hope that all the queens received through us may prove entirely satisfactory, as we believe they will.

HON. J. M. HAMBAUGH, writing us from San Diego Co., Calif., Aug. 31, had this to say:

FRIEND YORK:—The reliable, old American Bee Journal, boon companion to the wide-awake bee-keeper, cometh regularly, and is always welcome here in this far-away land of the Sunny Pacific Slope. I am afraid there are very few bee-keepers that can fully appreciate the energy and grit of the Editor who so faithfully compiles and prepares a weekly intellectual feast for its patrons upon topics relating almost exclusively to the honey-bee. Long may the old, faithful American Bee Journal live and prosper under the guidance

of our "auld lang syne" friend, George W. York, is our sincere wish.

It seems that fate has placed me at the extreme western limit of Uncle Sam's domain, where I am isolated from the haunts of my early life. Yet I can truthfully say I have no regrets, and have many reasons to be thankful, chief among which is an added lease upon life. Myself and family have enjoyed much better health here than we did in the East. The daily visitations of the cool, invigorating salt-breeze atmosphere is a panacea for almost every human ill, and hundreds and thousands at this season of the year hie away to the banks of the ever-rolling, restless ocean, to bathe in its cooling serf, and rest from the business cares of life. I imagine that could you but be suddenly transferred from your murky, blistering Chicago furnace to the banks of our Pacific clime, you would be suddenly impressed with the wide contrast, and would only wish to tarry here the balance of your mortal career.

Respectfully yours, J. M. HAMBAUGH.

Thank you, Mr. Hambaugh, for such expressions of kindly feeling and appreciation. Such go far toward resting the tired head and hand that often become so through the incessant efforts necessary to be put forth in order to send out the old American Bee Journal every week in the year. But, after all, it is a pleasant work. And one can keep on doing it with an honest feeling that he is really and truly helping some one—yes, helping many, who want and need just such aid as this journal gives.

To all our increasing thousands of readers we pledge continued effort and devotion, health and strength permitting.

HOME AND APIARY OF J. W. ADAMS.—On page 615 will be found a picture of "Oak Grove Apiary," belonging to Mr. J. W. Adams, of Montague Co., Tex. He took his first lessons in bee-keeping from his grandfather when he was a mere boy, but never kept bees until after he was married. He moved to Texas in 1884, and seeing so many bees there the old desire to keep them was revived, and so he bought some black ones in box-hives; these he transferred to Langstroth hives, and by making a study of the bees, and reading all the books he could secure, he has made a success of the business. He is also a farmer and stock-raiser.

Mr. Adams secured about 100 pounds of comb honey per colony last season (1900), which he sold at 12½ cents per pound; he gets 9 and 10 cents per pound for extracted honey, and has no trouble in selling all the honey he can produce, at these prices, and the middle of June he was behind 1000 pounds on his orders. He is the only practical bee-keeper in that locality, but through his efforts some have become interested in bees, and others have begun to improve their stock, and adopt the standard hives.

In the picture, the little girls to the left are Mr. Adams' daughters, the little one in the buggy is the baby, and the young man in the background is his eldest son, who has charge of his queen-business.

MR. A. N. TYLER, of Tyler Bros., located in Sutter Co., Calif., called on us last week. This firm of bee-keepers have 1800 colonies of bees, and their crop this year was about 20 tons—only about a quarter of a crop so Mr. Tyler says. He thought the total amount of honey in California this year would be about 250 car-loads. This is perhaps half of a full yield. Quite a lot of sweetness, however, and will likely have noticeable influence on the honey market of the country.

Contributed Articles.

The Honey Market and Crop in California.

BY GEO. W. BRODBECK.

WE bee-keepers of Southern California have been forced to confront conditions in the marketing of our product this year that we have never been obliged to face before; and I firmly believe that if the majority of our bee-keepers were patrons of our leading bee-papers, this state of things could not exist.

Every season we are informed from outside sources (and sometimes within), that Southern California will have an enormous crop of honey, and it matters not whether the conditions are favorable or not (last year as an illustration), with the consequent result prices are established before the honey is ready for the market and the amount produced is unknown. This year has not been an exception in this respect to the past, but that which has lent additional interest and more than all else to depress the market, has been the action of some within our own ranks. The object, of course, is self-evident, for the circulation of the rumor of a large crop has a depressing influence upon the bee-keeper who is forced to sell, and when the middleman quotes a well-known bee-keeper as authority, it lends force to the statement; and as the former has no means at hand to know of the vast quantity of honey that has been shipped to the United States from Cuba, Hawaii, and Puerto Rico, (this information is supplied by the buyer or go-between), knowing not whether it is true or false as to state of market, etc., he quietly submits and sells for the price offered.

We all know beyond question, that at the beginning of this season we had less than one-half of the bees to produce a crop with than four years ago, and yet the statement has gone forth that we produced as much, and more, than we did four years ago. I know beyond question that we have many honest buyers, and I know of bee-keepers who have been aiding these men in a legitimate way, but when men from our own ranks circulate statements with the express view of depressing the market, and thereby affording them a profit, I think it is time the California bee-keepers were warned against their practices, and it is this which prompts this article.

While I am not disposed to pose as authority in regard to this year's crop, information from some of our leading bee-keepers, and other sources, indicates that we have produced about 150 car-loads of honey, all told. Over half of this has been marketed. Comb honey has been produced in limited quantities, due to unfavorable conditions, and this has nearly all been disposed of. The remainder of our product is in the hands of men who can hold it indefinitely.

Los Angeles, Calif., Sept. 7.



How Do Bees Manage to Survive the Winter?

BY "AN OBSERVER."

BEES survive the winter by packing themselves in clusters between combs of waxen cells filled with honey. The low temperature a cluster of bees so situated can resist and still keep alive is really marvelous, and is only paralleled, in the other extreme, by the degree of heat a bacillus spore can withstand without losing its vitality.

Water, if kept from circulating, is as bad a conductor of heat as eider-down (see "Encyclopedia Britannica," ninth edition); and honey, for the same reason, contained in wax cells 1-5 inch in diameter and $\frac{1}{2}$ inch deep, must be an exceedingly bad conductor. We can, therefore, presume that although some heat must be lost, the loss through the combs may be reckoned as nil. The cluster loses heat around the outer circle, at the periphery; the circumference is the radiating and cooling area.

Now, if we take a cluster of bees, say 10 inches in diameter and $\frac{1}{2}$ inch thick—about the distance between the combs—we find that the cluster would be very nearly 40 cubic inches in volume, and the radiating or cooling area would be $15\frac{1}{2}$ superficial square inches; three cubic inches of bees, therefore, only expose to the cold a little over one

square inch of surface. If we take a cluster 5 inches in diameter we find the volume to be 10 cubic inches, and the radiating surface or area $7\frac{1}{2}$ square inches; and, if we take a cluster 4 inches in diameter, the volume would be $6\frac{1}{2}$ cubic inches and the cooling area $6\frac{1}{2}$ square inches. The 10-inch cluster has, therefore, three times the advantage of the 4-inch cluster, and, in proportion to volume, three times more heat will be required to keep up the temperature of the smaller cluster.

The relation of volume to cooling area may be shown thus: It would take the bees contained in four clusters of 4 inches in diameter to make one cluster 8 inches in diameter, and the cooling surface of the 8-inch cluster would be one-half of the cooling area of the total of the separate 4-inch clusters. The bees, therefore, in the larger cluster would require only one-half the heat to keep up their living temperature that they would in the smaller clusters.

If we take a cluster one inch in diameter the volume would be the half of .7854, say four-tenths of a cubic inch, and the cooling area the half of 3.1416, say $1\frac{1}{2}$ square inches; the cooling area is, therefore, proportionally four times greater than in the 4-inch cluster, and is too large to allow of much fall in temperature with safety to the bees. So small a cluster could not exist in winter, except at the equator or near to it.

The individual bee is very sensitive to cold, but we must remember that a cubic inch exposes 6 square inches of radiating surface, and that the volume decreases or increases as the cube, and the surface as the square. A bee in mass or volume is less than the sixty-fourth of a cubic inch, and its radiating, cooling, or heating surface is more than one-third of a square inch. Assuming the sixty-fourth of a cubic inch to be a cube, its surface would be three-eighths of a square inch. This cube would therefore expose a radiating surface proportionally twenty-four times greater than the 4-inch cluster. The single bee, when incorporated in the 10-inch cluster, must be afforded over sixty times more protection from cold than it would possess outside the cluster.

The space between the combs is important. We will consider the distance between the combs in reference to the cooling area, and at the same time the supply of food, as these are closely related. The 10-inch cluster, between combs $\frac{1}{4}$ inch apart, is surrounded by 80 cubic inches of honey—supposing the cells to be full—and as a cubic inch of honey weighs .05 of a pound there are 4 pounds of honey within reach of the cluster for the bees to feed upon. We will now suppose the combs to be one inch instead of $\frac{1}{4}$ inch apart; the bees clustering close would occupy 7 inches instead of 10 inches—the volume is not changed, it remains 40 cubic inches. The cooling area, however, has been increased to 22 superficial inches, and the honey within the immediate reach of the cluster has been reduced to 2 pounds; in place of 2 cubic inches of honey to the cubic inch of bees, we have only one cubic inch of honey to the cubic inch of bees. The food supply has been diminished 50 percent, and the cooling area of the cluster increased 40 percent. The bees must therefore consume 40 percent more honey to keep up their temperature; and this increase of consumption and decrease of supply would necessitate their change of quarters in search of food in one-fourth the time required had they remained at the $\frac{1}{4}$ -inch distance. It must be understood, in reference to increasing the cooling area and the correlative consumption of food, that the capacity of the bees to keep up temperature by feeding is limited, and in a badly proportioned cluster, i.e., a cluster radiating more heat than the bees can generate, the bees will die with an abundance of stores around them.

When the depth of the combs allows the bees to locate their stores above the brood-cells, they always lengthen the store-cells so as to leave only $\frac{1}{4}$ inch space between the combs. Let us see what the bees gain by diminishing the distance. Taking the 4-inch cluster between combs $\frac{1}{2}$ inch apart, it would have to extend itself to nearly $5\frac{1}{4}$ inches to remain the same in volume at the $\frac{1}{4}$ inch distance. The cooling area would now, from diminishing the distance, be reduced 30 percent, and the honey within the immediate reach of the bees would be increased, from 2 cubic inches to the cubic inch of bees, to 5 cubic inches to the cubic inch of bees—that is, 150 percent.

From the facts here stated I think it is evident that the size of the cluster and the depth of the combs are really the essential requisites for wintering, and that, as a general rule, the size of the cluster and depth of combs must increase with the degrees of latitude. As the combs increase in size, they must, of course, be diminished in number, and if the construction of the hives should not

admit of the requisite sized combs for the latitude in which they are to be used, the bees will not be able to winter successfully in them.

The fecundity of the queen, so far as we know, does not vary with the latitude and can not, therefore, be brought to bear on the subject in regard to the general area of combs used.

The bees survive through the winter by preserving as well as they possibly can the heat of their clusters; and as the general interior temperature of the hive can only be raised by the loss from these clusters, it follows—paradoxically, as it may appear—that the colder the general interior of the hive the better are the bees wintering, through the preservation of heat in their clusters; and it also follows that if upward ventilation, or draught, through the hive is prevented—which draught the bees dread above all things—the entrance to the hive can not be too large.

In the spring, however, when the bees extend from the cluster over their combs, warmth in the general interior of the hive has its advantage; but if great enough to cause the bees to leave the clusters too soon, it might be productive of more harm than benefit.

The controversy concerning the merits and demerits of cold and warm hives by the presentation of the above facts is reduced in importance. The main object to be considered is their construction to admit of combs adapted to the size of bee-clusters required in various latitudes.—British Bee Journal.



No. 2.—A Bee-Keeper's Vacation in Wisconsin.

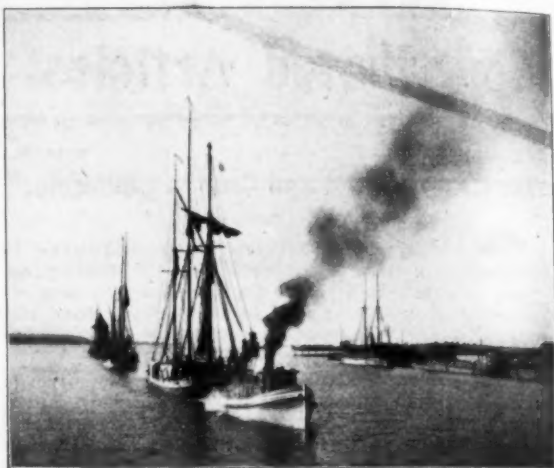
BY C. P. DADANT.

FRIEND reader, last week I left you after telling you a fish story, yet I have no doubt that you wish you had been along with me when those fish were caught. But this happy neighborhood has other attractions besides good fishing, for they tell me that there are both deer and bear in the woods around Sturgeon Bay. I was rather inclined to doubt the existence of the latter in a section already so well populated, but having had occasion to take a drive into the country for a visit to an apiarist, the lady who accompanied us showed us the spot where she had been badly frightened by the appearance of a bear while walking along the road. "And," said she, "though I turned to run, the bear was as badly frightened as I was, for he also turned and ran the other way."

The woods are indeed wild, in spots, more brush than timber, for all the good timber has long ago been cut, and made into lumber, and the forest fires have destroyed what had not been despoiled by human wastefulness. The thickets are so dense that it is, in some places, almost impossible to get through, and they say that in the deer-hunting season it is not very safe to travel about in those woods, not on account of the bears, but on account of the careless hunters who are apt to shoot at anything that they see moving in the thickets, before they have ascertained what sort of game it is.

Those woods contain all sorts of evergreens and many deciduous trees, chief among which are the beech and birch. There are also shrubs, blackberries, and the inevitable red raspberry, which I am told exists all over the North, clear up to Alaska and the Klondike. This is certainly a very nice thing for the bees, and if the honey from the raspberry is half as fragrant as the wild berries themselves, it must be delicious. But it may be with this as it is with the early fruit-bloom in Illinois, perhaps the colonies are not sufficiently powerful at the time of the bloom to take any advantage of it. But there is plenty of this bloom, for the waste land and the woods are full of red raspberries.

The white pines that formerly composed the bulk of the forests in those parts have disappeared, and if you accidentally notice one, towering above the rest of the forest in lonely majesty, you may be sure that its trunk is defective and rotten at the core, for that is the only thing that could have saved it from the ax. When the first settlements were made, the main puzzle for the white man was how to get rid of the wood, and we can still see traces of an awful waste of timber that would now be valuable. I saw a small apiary in an enclosure made of trees two to three feet in diameter. Two logs had been rolled side by side, and a third one put on the top of them, making a barrier about four feet high and four feet in diameter at the base. Of course this fence was old, probably 25 years or



A TUGBOAT TOWING SAILBOATS ON THE LAKE.

more, but it was still sufficient to keep out stock, and stood as a witness of the haste with which people destroyed the forest. May we not, as a nation, be sorry later on, for not having retained at least a part of those beautiful forests? The pine timber is getting more expensive, and experienced lumber-men predict that within ten years most of the pine will have to be purchased in British America. Already most of the timber on the shores of the big lakes has been picked over, even on the Canadian side, and although many and many a boat-load is seen coming southward towards Chicago and the big centers, yet the quantity is less than formerly. Some saw-mills are cutting only hemlock, such timber as was considered worthless 20 years ago.

But the destruction of the forest does not seem to injure the bee-industry, for if many wild plants are thus destroyed, it is there as in our prairie States, many of the cultivated plants are honey-yielders, and the white clover steadily gains a foothold wherever cattle graze. So the prospect is rather for an increase of honey-production than for a decrease. And the Golden Age, in a country "flowing with milk and honey," is certainly more in the prospective future than in the past, in all these hills that have seen the Indian disappear when the white man came.

But, dear reader, it is now time to go home, and our vacation is coming to an end. At ten o'clock, Monday morning, the whistle of the "Chicago" boat announces to us that she is at the dock, waiting for her passengers, and we bid farewell to our new acquaintances, and embark. "Grandpa" Dadant, who is to stay till the end of September, accompanies us to the boat. In another hour we pass through the Ship Canal, and are afloat on the blue waters of Lake Michigan. We give you herewith a view of one of the many sights we encounter—a tug drawing three sailships loaded with lumber, bound for some southern port. This view may be familiar to many of our Chicago friends, but it will surely interest our prairie bee-keepers, who have no occasion to visit the lakes.

On the second day of our trip we had a little storm, just enough to give our ladies an idea of seasickness, and its pleasures (?); but this was soon over, and gave them just that much more appetite for a hearty supper in a Chicago restaurant.

When we arrive in Chicago, the romance is at an end. There is nothing left but noise and bustle, smoke and dust. No, no, don't talk to me of Chicago! We hurry home as soon as we can, barely taking time to pay a short visit to our worthy friend, Mr. York, the kindly editor of the American Bee Journal. In a few hours, through smoke and dust, we are again at home, resuming the daily duties of life.

Hancock Co., Ill.

"The Hum of the Bees in the Apple-Tree Bloom" is the name of the finest bee-keeper's song—words by Hon. Eugene Secor and music by Dr. C. C. Miller. This is thought by some to be the best bee-song yet written by Mr. Secor and Dr. Miller. It is, indeed, a "hummer." We can furnish a single copy of it postpaid, for 10 cents, or 3 copies for 25 cents. Or, we will mail a half-dozen copies of it for sending us one new yearly subscription to the American Bee Journal at \$1.00.

Convention Proceedings.

Report of The Texas Bee-Keepers' Convention.

BY LOUIS SCHOLL, SEC.

THE seventh annual meeting of Central Texas Bee-Keepers' Association was held at College Station, Tex., July 22 to 26, 1901. It was really a joint meeting of the Central Texas, North Texas or Texas State, and South Texas Bee-Keepers' Associations. The three were consoli-

The call for new members was ordered postponed, as a committee appointed by the chairman, on constitution and by-laws, was to make its report at the afternoon session. This committee consisted of Louis Scholl, H. H. Hyde, and F. L. Aten. Then the regular subjects on the program were taken up, E. J. Atchley speaking on

BEE-KEEPING FOR FARMERS.

He hardly knew whether to encourage farmers to keep bees or not. He mentioned some of the things he had seen at a neighbor's, who was a good farmer, trying to keep bees, and making blunders. If they would only keep a few colonies, and produce only enough honey for their own use and table, it would be all right. When keeping more, and during an extra-good year, they have a surplus, which they rush to a town, lump it off for any old price, and it being



HOME AND APIARY OF J. W. ADAMS, OF MONTAGUE CO., TEX. — (See page 612.)

dated into one, viz: "The Texas Bee-Keepers' Association," with new officers elected, and new constitution and by-laws adopted.

The meeting, in general session assembled, was called to order by Pres. O. P. Hyde, of the Central Texas Association, July 24, at 8 a.m., with Pres. Stachelhausen, of the South Texas, and J. M. Hagood representing the North Texas Association, in the chairs; Secretary E. J. Atchley, of the South Texas, and Sec.-Treas. Louis Scholl of the Central Texas, at the desk. Pres. Hyde spoke briefly on the honey-bee, after which Mr. Atchley offered prayer.

The presidents next made their reports, followed by that of the secretaries, each giving an account of the standing of their respective organizations. Next, the election of officers of the Central Texas Association ensued, and resulted in electing, for the ensuing year, J. B. Salyer, president; H. H. Hyde, vice-president; and Louis Scholl re-elected Secretary-Treasurer.

mostly honey of an inferior quality, besides their not being informed in regard to the price of honey and the condition of the market, never reading a bee-journal, they run down the price of honey, and are ruinous to the experienced bee-keeper, who is in it to earn his bread and butter; therefore, Mr. Atchley said, it should be discouraged.

J. M. Hagood is in a strictly farming district and is a farmer. He said that the farmers ought to encourage the bee-keepers to keep bees for the good purpose of fertilizing the flowers. He has his home-market and sells most of his honey there, so the effect of the farmers' ignorance and inferior honey, containing old, dark combs with pollen and such, has ruined his market and lowered the price.

G. F. Davidson moved that we invite Prof. Mally, State entomologist at the A. and M. College, to speak before the bee-keepers at the afternoon session, in regard to assistance from the bee-keepers in going before the next special session of the legislature in August, asking for an appro-

piation sufficient to help cover the costs of establishing a department for the study of bee-keeping, and the location of an experimental apiary on the grounds. After some discussion concerning the great need and usefulness of such an establishment, and the great good that could be accomplished, the motion was unanimously carried, and a special committee appointed, composed of H. H. Hyde, G. F. Davidson and R. C. Knowles, to invite Prof. Mally to appear before the bee-keepers. Another committee to assist Prof. Mally, and to go to Austin (Texas) before the legislature, was appointed, viz: G. F. Davidson, Louis Scholl, J. M. Hagood, and E. J. Atchley.

The regular subject under discussion was then resumed. Z. S. Weaver said that bee-keeping must be followed altogether as a business. He does not encourage farmers to keep bees, but how many would be here now as bee-keepers if not started on their farms? It just depends whether the bees or the farm is the thing one should follow, and of course the one not the best paying is turned loose. Some keep bees as a side-issue, become enthusiastic and succeed, while others fail. If the farmers keep a few colonies of bees for their own use it is all right; otherwise it is not.

O. P. Hyde makes a whole business out of bee-keeping and keeps bees for the dollars and cents there is in it; he has no objections at all to farmers keeping bees, for if he had 100,000 pounds of honey at his home, not 1000 pounds of it would be sold there, as all of his honey is shipped to markets in North Texas. Just let farmers keeping bees go on, and the matter will adjust itself some way in the future.

To this Mr. Atchley objected, as new ones coming in all the time the matter could not adjust itself, but must be done by the experienced bee-keepers discouraging the kind who won't succeed.

There were many who gave their opinions in regard to this matter. Some discouraged farm bee-keeping, while others proclaimed it all right. Some of our greatest apiarists started on the farm. But to keep bees, and a farm, too, was not deemed practicable; that either one should be followed as a profession and not divide one's attention. Either be a bee-keeper or a farmer; they can not be made to harmonize, as the bees need one's whole attention to make them successful, and either the farm or the bees must be neglected some time, especially in the spring. At the time the bees need attention the farm needs it; and as nobody can be hired to attend to a business as one himself would, something will be neglected. And what is the use of only half attending to each, instead of following the one most suitable? There are many sections most excellent for bees but not for farms; others just the reverse. Then, again, there are men more fit for one than the other. This ought to govern as to which line should be followed.

The discussion ended, that if farmer bee-keepers would keep bees in up-to-date ways, produce their honey by the latest methods, putting it up for market rightly, and keep informed in regard to the market price of honey, by reading the bee papers and books to keep up with the times, there will be no harm done. So it will be the duty of the more experienced to teach them all this. Encourage such as will succeed and will try to make a success at it. But the others that can't be taught, won't read a bee-paper, won't learn, and come in with their inferior stuff, to lump it off at any old price, should be discouraged in any way possible. Bees really belong on the farm as well as poultry, hogs, cows, and such, and should be kept, but rightly kept.

PRODUCTION OF CHUNK COMB HONEY.

This was next taken up, on which M. M. Faust gave his method of production, and disposing thereof. He wants the strongest colonies for producing all kinds of honey, but more for bulk comb honey. He lets them get strong and gives them more room, by adding half-depth supers with shallow frames containing foundation starters one-half inch wide. If the bees are slow to go up, he puts on another half-depth super, putting up some frames of brood from the brood-chamber below, and putting the shallow frames in their stead, until well started, when all is readjusted. He used to produce about one-half extracted and one-half of bulk comb, but the past season he has had to buy extracted honey to fill up his comb-honey cans. By giving all frames containing foundation he has had some trouble by the queens depositing eggs in the supers.

O. P. Hyde followed with a good paper on this same subject. In its different phases, this subject would naturally divide itself into these three parts, viz.:

1. How to produce bulk comb honey.

2. How much more bulk comb can be produced than one-pound sections?

3. Why should we produce bulk comb honey?

On the first part, have all your bees in 10-frame dovetailed hives of standard size; Italian bees, and raising colonies. Then when the flow begins, he puts on one "Ideal" or 5 $\frac{1}{4}$ -inch-deep super with 5 $\frac{1}{8}$ -inch-deep frames filled with full sheets of extra-thin foundation. By using full sheets of this foundation the bees enter the super at once, and it will not be detected in the honey. When the first super is about half full, another is put under it, and so he keeps on tiering-up. He gives plenty of room and sometimes has as many as four or five supers on his strongest colonies.

The above size of frame is preferred, as when one is full, it will just make a complete layer in the five-gallon eight-inch screw-top 60-pound cans, when cut in two in the middle. The 4 $\frac{1}{4}$ -inch frames are too shallow, requiring strips of comb to be cut to fill up the space.

The advantage of shallow frames over full-depth frames is that more capped honey can be obtained.

Secondly, he asserts that twice as much bulk-comb can be produced as one-pound sections, believing that he can prove it. The bees enter open frames more quickly, work harder, and almost fill two supers as quickly as one section super. Also, the advantage of the extra amount of extracted honey that goes in at comb-honey rate.

Thirdly, the keeping of bees from the dollar-and-cent stand-point, wanting all the honest dollars that are in it, the bee-keeper must produce the kind of honey that sells the quickest and gives the best returns. If his customers were wholly or mostly for section honey, he would be forced to produce that kind; if bulk-comb, then that kind; if extracted, then it would be extracted. As it is the demand that keeps us in the market, we must produce the kind there is a demand for.

He was once an advocate of section honey—the kind that has a thin strip of wood around it, thinking it so nice, and it could be sent to market just as the bees made it. He is still an advocate of comb honey, but the kind that is cut from the frames, placed in cans and that delicious, sweet extracted poured all over it. Then you have not only extracted on the inside, but on the outside of the comb also, which makes it more desirable to the taste. When he was for sections, the Northern brothers said he was a practical apiarist, but now he is for bulk-comb, and they say he has retrograded 30 years, which, however, does not matter with him, as he is not for popularity, but for the dollar.

He also gave some figures and some idea of the immense quantity of such bulk comb honey that is in demand over only a small amount of other kinds.

A question was asked in regard to keeping it over winter, whether it would granulate, and if it could be taken out in layers then. The answer was that this was the only drawback that bulk comb honey had, but the demand for it is so great that it can not be supplied, hence none is kept over winter to become granulated.

Mr. Davidson seriously criticized Mr. Hyde's paper, saying that he did not want it to be understood that the production of section honey should be assailed in any way, and that the production of sections should not be discouraged; besides, the production of fine section honey stands above all others, and is the highest art of producing honey. He intimated that the reason why others were not producing section honey was because they did not know how; and that the day will come when more section honey will be produced than bulk comb, as it is the more wealthy people, anyway, that eat the most honey. All three grades are good, but fine section honey can not be procured during slow flows, as it takes fast, rushing flows, and a locality with such. There is just as much in dollars and cents to be made with section honey as bulk-comb, and the former should be encouraged. O. P. Hyde ended the discussion by saying that he was not at all discouraging the production of section honey; that he is willing to produce only what is in greatest demand, and gives the greatest profits. He is not pushing this, but it is his customers that choose it, or demand it of him.

Before adjournment, H. H. Hyde moved to appoint a committee of three to judge the bee-keepers' exhibits, and these were named: D. C. Milam, W. O. Victor, and Mrs. C. R. West.

Adjourned for dinner, until 2:00 p.m.

(Continued next week.)

Questions and Answers.

CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

[The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.]

Combs Melting Down—Swarming Mix-Up—Transferring, Etc.

Replying to J. A. Gerald's (page 567), I think he has made the right guess in concluding that the combs melted down in his hives because the dense growth surrounding them prevented the free passage of air. I never yet had combs melt down when hives stood in the full blaze of the sun, but one year I had a few cases where the hives were in dense shade all day long. A dense growth of tall corn was on one side of them, and close bushes on the other.

In reply to S. B. Smith (page 573), he has no doubt made a close guess at what transpired. Of course it can only be a guess, but I should put my full guess in this way: The young queen in No. 11 went out on her wedding-trip, accompanied by enough bees to make the small swarm that was hived; the remaining bees of No. 11 then walked over to No. 15, thus making No. 15 of extraordinary strength. An item that tends to confirm this opinion is the fact that bees were seen going on the alighting-board from No. 11 to No. 15, and it is likely that close observation would show the bees doing that same thing two weeks later. The bees on coming from the field would not go direct to No. 15, but would enter No. 11, and then crawl across until that generation died off; at least a certain number of the bees would go through that performance.

T. F. Weaver (page 574), would like to know whether his plan of transferring would work all right in a poor honey-year. It would likely be all right except the danger of robbing, for if he should do exactly as appears from his description at any time when honey was not freely coming in, he might have a lively time of it.

Dr. Peiro (page 574), lays a very heavy burden on that poor little crack under the cover. You say, Doctor, that after seeing that crack your "conclusions were clear and rapid." Rapid, very likely, but it is somewhat doubtful about the clearness. A reasonably strong colony will not only guard a full-sized entrance in the ordinary place, but also an entrance equally large right under the cover. For a number of years, following the example of Adam Grimm, I allowed, besides the regular entrance, an opening over the frames at the back end of the hive 15 inches by $\frac{1}{4}$ to $\frac{3}{8}$, and there was no trouble about the bees protecting themselves. If at a time when robbers were bad an opening should suddenly be made under the cover, there might be a little danger of trouble, but if the opening were made in a time of plenty, there should be no trouble; and there should be no danger either in scarcity or plenty if the crack were made by the gradual warping of a cover. C. C. MILLER.

Perhaps Larvae of the Bee-Moth—Chilling Brood.

1. On Aug. 3 I made the first "drive" in transferring a colony to a new hive, supplying them with full sheets of foundation, and after they started storing well I gave them an Italian queen. I have fed them lightly by putting a small dish of granulated sugar syrup under the frames at night, and removing the empty dish in the morning. At present they have six Danz. frames nearly filled, and two more started, principally from sweet clover, but they are destroying brood. In the morning there will be young bees sometimes to the number of 30 or 40 scattered around the entrance, ranging in color from clear white through all the shades and markings of brown, up to those which will be struggling to free themselves from the dewy entrance-board. What is the cause and cure?

2. Is there danger of chilling the brood by removing it from the hive in the morning or evening of cool days at this time of year?

I can find nothing on these subjects in my books.

ILLINOIS.

ANSWERS.—1. Looks like worms, or (begging Prof. Cook's pardon) the larvæ of the bee-moth. They work

their galleries through the cappings, and the larvæ of one kind work at the bottom of the cell. When very bad, the young bees will be dragged out as you describe. The remedy is to get Italian blood. Possibly, however, a fuller knowledge of the case might suggest some other trouble.

2. No danger when it is warm enough for bees to fly, unless the brood is kept out an unreasonable length of time. Ordinarily there is no need to have a frame of brood in the hands more than a minute at a time.

* The Afterthought. *

The "Old Reliable" seen through New and Unreliable Glasses.

By E. E. HASTY, Sta. B Rural, Toledo, O.

NO BROOD BUT EGGS PRESENT DURING DROUTH.

Dr. Miller's experience in the great July drouth—no brood either sealed or unsealed, but *eggs always present*—adds a crumb to a pertinent and interesting bee-fact which we have to figure with. Page 519.

PURITY IN MARKINGS OF PARENTS.

It sounds to me as if "Texas," on page 520, was after strictly three-banded queens and drones. Won't get em. Doubtful if they could be called any purer than the present ones if he did. He should remember that nature often differentiates the sexes remarkably. Sometimes it even occurs that the male is a winged creature and the female a crawling worm. Wild birds are pure, yet often the male is brilliant in colors while the female is plain looking.

"BURNING ONE'S OWN SMOKE."

Prof. Cook, on page 521, passes to us some important teaching clad in very pungent words—let us burn all our own smoke. Won't make quite so much smoke if we have the job of burning it in view. And what rent have we paid for our neighbor's eyes and lungs that we should warehouse our smoke in them? Ahem! not forgetting that what we try to call entertaining conversation is sometimes the worst smoke we make.

MAKING ROOMS MOUSE-PROOF.

Mr. Foote is on the right track about mouse-proof rooms. Mice first get into the spaces between walls. From that vantage ground they see the Promised Land through cracks, and lay plans to get there—would not so often dodge through doors had they not their minds made up previously that it was a good place to go. And usually, as we know, some little defect in plaster or base-board proves capable of enlargement, and in they come. Flooring plump to the outside of the building, and studs set on a narrow plank, would keep them out of the wall-spaces to start with, and so mainly prevent after consequences. Page 523.

WORKING HIS "STANDS."

How does he work his stands, Dear Boss? Why, he makes them *lift*. And if he makes them lift about 100 pounds more in August than they do in May, is it not all right? Virgil is praised because he called a bee-hive twelve different names; and ever since I read Virgil (if not before) I have had a leaning in that direction—toward an elastic application of terms. True, lack of precision is a bad thing; but it is also a bad thing to have our vocabulary too limited—too lean and bald. May we not all be poets to the small extent of having a little versatility to our speech? Let us not groan nor scold even if one comrade does catch a nice *string* while another catches a nice lot of fish—and another catches a dinner, and another catches a cure for sore eyes. Page 530.

THE LEGISLATION OF THE AUSTRALIANS.

Those Australians are continually solving things the rest of the world failed to solve—or failed to try to solve. We cannot very well legislate the apiarian pig to his own end of the territory trough; but we can give him a "bar-sinister" by refusing him membership—and see whether his hide is so tough that he cares nothing for a blow of that kind. Alas, American societies seem rather too nebulous to hit anybody, even to the small extent of refusing membership. Membership is anybody that happens to come to a meeting—and so few that the proposition to bar people out would seem gro-

tesque—last rose of summer forbidding the pips to bloom. Page 527.

WRITING UP THINGS WHILE FRESH IN MIND.

I also incline to "Amen" the plan of writing up things while they are fresh in the mind. Writer needs the help most even if it was a case of writer versus reader, which it isn't exactly. Reader's ears have been dug open by his experiences, and will have wax in them ten months hence. Also, if the would-be writer forgets a thing before it gets in print there is no back number to go to for it. Page 531.

* The Home Circle. *

Conducted by Prof. A. J. Cook, Claremont, Calif.

THE TABLE.

"Ah! but wasn't that an elegant table?" That was my daughter's query. We had just broken doughnuts with a good friend—one of those splendid women who is ever dispensing cheer and comfort. And well did she ask. First, the linen was so entirely immaculate and of such proportions that it just seemed made for that special table. Each marginal inch seemed impressed by gravity just as strongly as every other, for none had reached down nearer the floor than had any other. And the table *per se*—what a piece of art! The plates with accompaniments, each was like a well arranged bouquet. Nothing was crowded, yet there was no wide desert area, and we were all glad that room was found for a single lovely spray of wild roses. These were sweet as they were chaste and beautiful. The whole combination was so pleasing to the eye, that one could be content to sit and gaze.

Of course we all like good things to eat. Do we all appreciate as we may, and ought, the utility of beauty about and on the table?

I know a dear old farmer who would never sit at the table, nor would any of the children, without collar, clean coat and necktie. The children grew up simply to respect and copy that parent. The mother rarely omitted the flowers. She appreciated the courtesy of the loving, thoughtful husband. Flowers of discord could never grow about that table. Other better flowers had preoccupied the territory.

Do we all know and realize what a prominent part appearance—inviting viands—play in the work of digestion? Let the table look well, the eatables offered savory, so that one loves to sit and linger, because, simply, of the environs, and the digestive organism laughs at its work, and feels it no burden. Ought we not to make the dining-room the very pleasantest in the home? There we are all together. There we sit long—most of us ought to sit much longer. For reasons of health, I would have the room, the table, the good things on it, the very atmosphere, all as elegant and delightful as time and means would permit. We can none of us afford ever to be cross, surly, petulant—certainly not in the home, assuredly not at the dear home table. There is no lubricant that so nicely oils the wheels of digestion and assimilation as does good cheer. Nothing so adorns the home table like never-failing courtesy, cheerful demeanor, sweetest temper. It is an undoubted fact that nothing breeds incurable dyspepsia like crabbedness. Nothing shuts it out from the home and life more surely than an atmosphere of purest love and harmony.

GATHERING AT THE MEAL.

A day or two since, I was entertained at two of the most lovely rural homes in California. That is saying much, for no urban homes can surpass in comfort and elegance some of the ranch homes of this favored region. At one I was only present at the dinner hour. It was a family which sounded no discord in that lovely home. As we gathered, all were present and sat at once. It was easy to see that this was their wont. Only well-drilled soldiers are always in line. One can see so quickly in the preparation for meals whether they are in habit of unison, or whether they struggle along, with no thought of one another.

In the other home, equally elegant, it was not so. I was present at two meals, and at both each came as convenience set the pace. It was obvious that this was custom. I sorrowed for all. In my home, and at my table, I would as soon

the steak, the coffee, or the bread, were omitted as to be deprived of son or daughter, and the whole table would in no wise compensate for the absent, or lack of the good wife.

REGULARITY.

This gathering at the table marks one phase of life that counts for much in our success or failure. Are we regular in our habits? Do we accustom ourselves to act promptly, and on time? Even in our physical functions this contributes immensely towards health and vigor. In the mental activities it means much more fruitage. To rise, to eat, to retire, etc., at irregular times, means enfeebled health and poor work. To study haphazard, means poor mental work, and a shabby brain. This is one of the good things about college life. There lunch must be exactly on time. Often this will suggest and secure regularity in all the life. Then organic wheels all turn easily—no friction anywhere. Each organ does its best, and most, and all the time. We know not why, but the body works much more energetically when it is always in its special grooves. I think most of the great geniuses have had habits of wonderful regularity. Men like Gladstone could not have so moved the world had any other course been chosen.

CARPENTERIA.

The ride on the "Espe" shore line from Ventura to Santa Barbara is charming. I took it to-night by moonlight. On one side the tall hills—beginnings of the Sierra Madre—hug close as if to shut all danger away. On the other, the breakers keep pushing up as if to hold us on the narrow rock ledge. With the moonlight to glid all, it seems a fairy scene. Carpenteria—pronounced Car-pen-te-ri-a—is a delightful little burg about midway on this line. The word is said to come from the Spanish for "carpenter." There are several explanations for its adoption. I like this one: The red-winged flicker or yellow-hammer like the golden-winged of the East, except red replaces gold on the wing-feathers, is thick here, and is a winged carpenter, as all over California it pecks into buildings. One church is surely very "holey" because of this bird's desire of entrance.

If we can trust to appearances at Carpenteria the bird is a Baptist. The worshippers there have been compelled to tin the church steeple, to protect from the flickers. The bird is also a sap-sucker in California. He taps the walnuts, as does the real, genuine sap-suckers the various orchard and forest trees here and elsewhere. He is also unlike his close relative East—a fruit lover. No wonder any bird that once tasted California fruits would surely change its food habits, and become frugivorous on the spot.

Like the other flicker, if we take this bird's eggs away daily, she will lay as many as 30.

SICK PLANTS.

Do our plants talk to us? If not, let us get acquainted with them, and then they will. I love the poet Bryant. Isn't he called "the Poet of Nature?" He loved the great, spreading trees, with their grace and grateful shade. The brooks sang for him, and to him; and trees, brooks, hills, mountains, sky and air, had their stories to which his ears gave fine attention. He wrote the great "Thanatopsis." I read it so much to my children, that they learned the poem, and to-day my daughter loves Bryant most of all our poets. That he had a listening ear for Nature's finest thoughts appears from the exordium of that masterpiece:

"To him who in the love of Nature holds communion with her forms,
She speaks a various language."

The little child wakes before the day, and awakens our keenest anxieties by his little "I'm sick." As Day draws her curtains, we peer down to the little trundle-bed, and we see the pallor that drove away the pink and the rose, and the "I'm sick" is spoken just as clearly.

My wife is anxious. The great, splendid sword-fern which is the glory of our parlor, tells her it is sick. It speaks in the yellowing tint of the leaves. And what shall we do? As in all plant sickness, so now. First, are there any insects? Does grub or caterpillar sap the roots, or scale or aphid the leaves? My wife is too wary to make that probable. We examine very carefully and find nothing.

Next the water. Has there been too little or too much? Wife has learned to gauge the water. We decide the water has been right.

Then we add nitrogen, sodium nitrate or Chili saltpeter is excellent, and, all at once, as by magic, new green appears, life brightens, and our plant fairly sings, "I'm well again."

Plants, like children, must be generously fed.

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Bees Did Well.

My bees have done very well this season, and not much swarming. From one colony I took 225 filled sections of honey. We get very little dark honey.

JOHN GERTHOFFER.

Onondaga Co., N. Y., Sept. 9.

From Two Washington Girls.

We have done so well in the bee-business this summer that we thought we would write again. We are going to send a picture of our apiary this fall.

By buying queens and comb foundation we increased from 7 colonies to 21. They have filled 350 sections. We ran out of sections, and so we put on empty supers and boxes. They have them nearly full of honey now. We get 16 cents per section, and could sell all we could produce at that price, even if we had 100 colonies, and that is what we are going to have before we quit. We wish you could see some of our honey. It is white, and of the finest quality.

EDNA AND ALICE YOUNT.

Spokane Co., Wash., Aug. 31.

The "Jouncer"—Queen-Excluders.

Permit me to join Mr. Davenport in commending Mr. Martin's "jouncer." Noticing reference to it in a recent number of the American Bee Journal, I thought it worth a trial in removing bees from cases of comb honey. The first attempt was so satisfactory that I thought aloud that "that little bit of information was worth several years' subscription to the American Bee Journal, to any bee-keeper whose time is of value." It does not need a heavy jar, but a quick, sharp one, such as may be given by a little practice.

If Mr. Martin's cloth tray could be placed so as to be jounced with the super or case, it seems to me that there would be practically no killing of bees. I use a little smoke before removing the case from the hive; a little

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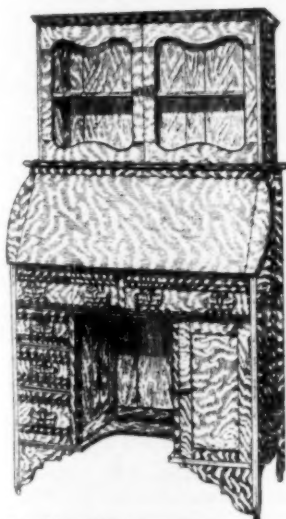
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more at the top when on the joiner, so as to drive the bees down, then by giving the case two or three quick jars, the bees are nearly all out, and one is saved hours of labor by this simple operation. Mr. Martin, thanks!

There is one other matter which is of more or less importance to bee-keepers, and in regard to which there seems to be a difference of opinion, that I would like to refer to. It is that of queen-excluders over the brood-frames. I have never used one, neither for comb nor extracted honey. Sometimes the queen has gone into the surplus chamber when run for extracting purposes, but very seldom into a section-case, and not often in the super. This year, after removing a large number of cases, I have found that the queen had occupied but two sections of the hundreds taken from the hives.

I attribute this freedom from intrusion of the queen to the use of thick top-bars, carefully spaced, so that only a bee-space is left between any two of them. I may be mistaken, but if my impression is correct, what a saving of time, money, and trouble putting with zinc excluders.

By the way, say to Mr. Baker (page 546) to keep tally of the sections from the colony referred to. I have some long-tongued bees, and shall strive to be at least a "close second" when the season closes.

Kankakee Co., Ill. WM. M. WHITNEY.

A California Report.

I started the season of 1901, in March, with 240 colonies, increased to 270 colonies, and have taken off 51,700 pounds of extracted honey, besides leaving the supers full.

J. A. ODERLIN.

Orange Co., Calif., Sept. 12.

Fairly Good Season.

The season was good until the drouth set in in July, when the excessive hot weather cut the linden flow short. I secured 4000 pounds of mostly extracted honey, from 61 colonies, spring count, and increased to 110, which are in good shape for winter. All of my honey is sold in the home market. J. M. DOUDNA.

Douglas Co., Minn., Sept. 13.

The Bee in California.

Bee-keeping in parts of California is not only a success but a real pleasure. The mild, temperate climate does not necessitate the careful housing of the bees, nor is it necessary to find food for them during the winter season. The colony is placed in a convenient spot under some tree in the fence-corner. They have shade, and also a wind-break. Here they gather the nectar which we read Jupiter sips. What men eat has somewhat to do with their disposition, and those who eat honey are blest with the kindest disposition. Therefore, if more honey was produced, and more eaten, the race would reap a rich benefit. This is no vague theory—it is a scientific truth.

The honey taken late in spring is oftentimes of the very finest quality. The locust blossom has given a generous contribution, and this is one of the finest honey-producers.

The honey taken in the fall is enriched by the alfalfa blossoms, and also from the blossoms of the mullen-weed. This weed does not grow east of the Rockies. It also keeps close to the ground, and is of a very light-blue color. The honey-gatherers seek out its tiny blossoms with the same diligence that the doves seek out its seed. It grows abundantly on the pasture-lands.

Honey retails for 10 cents a pound, or two dollars a box. These boxes contain about 30 pounds when full. They do not have the frames, and the honey is not in a condition to retail as is the case with that made in frames.

Among the various other sources from which the California rancher may look for an income, he should give attention to bee-culture. He knows and keenly realizes that he can not depend any longer upon wheat at the low price of recent years, and, while he is looking after other sources from which to receive an income, he may do well to remember the bee.

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"RANCHER."

California, Aug. 5.

Something from Arkansas.

I have been a subscriber of the American Bee Journal for nearly a year, and am indeed impressed with the fact that it is peculiarly in the interest of the apiarist.

While Arkansas may not be as good a bee-State as some others, yet with the proper care and interest in the work, honey can be relied upon as an industry sufficiently paying to encourage any one to embark in the business here.

The moth seems to be the pest to the apiaries of Arkansas, as is also the borer to the orchard. Part of my hives are the old-fashioned box-hive, and part are movable-frame hives, mostly the old "Kidder" hive; both do well, but I have no doubt that the frame hive is much the better. However, many people who have tried the frame hives on a small scale, have gone back to the box-hive again, declaring the former to be a failure. This, of course, is because they gave their bees no attention.

This is purely a cotton country, and but little attention is paid to any other industry. I have for several years been studying and reading about the bee, and intend to join the National Bee-Keepers' Association, and hope to be of some use to the bee-industry of this country.

A. E. STONE.

Yell Co., Ark., Aug. 31.

Treating Hive-Covers—Other Matters.

Mr. E. H. Schaeffle, in Gleanings in Bee-Culture, proposes to boil hive-covers in linseed oil to prevent warping. This may be a very good way for water-tight hives. My way has been to paint hives and covers inside with raw linseed oil. Oil makes it easy to scrape and clean hives out, as well as to protect the wood. For the outside, two coats of pure white lead mixed with raw linseed oil. White lead is a cool paint. I have some red-wood hives ten years old thus treated, that are almost as good as new, while hives that were not painted have mostly gone to wreck.

But nothing suits me like the dovetailed hive and gable cover for moving, as well as for the dry climate of central and southern California.

For bad cases of robbing I use the following plan: Remove the covers of the hives being robbed, and put on an empty frame covered with wire-cloth, such as is used in moving bees. Then brush a little coal-oil on the entrance, and a large part of the robbers will be attracted to the top of the hive. This also affords the little "soldiers" air.

The honey-flow from the lima beans of Ventura county has been very light—only enough to put the bees in good condition for winter. We moved 200 colonies 50 miles for the beans, at the close of sage-bloom.

The honey crop near Newhall was a good average one, but not so close to the coast, as a cool fog lasted while the sage was in bloom. I was told that San Diego county would not have honey enough for its own use.

E. ARCHIBALD.

Ventura Co., Calif., Aug. 24.

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Size of Queen-Rearing Nuclei.

Efforts have been made to use as small a number of bees as possible in queen-rearing nuclei from the time the young queen emerges until she is laying, but it is possible the waste of a larger number of bees is not so great as might be supposed. Dr. Miller says in *Gleanings in Bee-Culture*:

The greatest part of the cost of rearing a queen has been considered the time occupied in the nucleus to get her to laying; and, like others, I have made some effort toward seeing how few bees might be successfully used in a nucleus. But is not the cost of nuclei magnified? If I am not mistaken, a colony with a virgin queen will work just as vigorously as one with a laying queen, and a field-bee will carry just as much nectar to a nucleus as to a full colony. If that is correct, and if a cell is given at the time of removing a laying queen from a nucleus, then there will not be more than two days when the nucleus will not be in good storing condition, and when too much honey is in a nucleus a full frame can be exchanged for an empty one. Of course there will be some loss from the larger proportion of bees required to keep up the heat in a small nucleus. But I suspect that the gain from fewer bees in a nucleus is overrated.

To Prevent Swarming.

Mr. Doolittle says in *Gleanings in Bee-Culture* he is trying several plans, but has only one which is as yet perfect enough to give out. It is as follows:

Give lots of room, with as many bait-sections as possible, so as to discourage early swarming as much as you can. When you think you can hold them from swarming no longer, cage the queen. Now wait from 10 to 11 days, when you will shake the bees off their combs so you are sure to see every queen-cell started, and pull every cell off. Now make a hollow plug to fit one end of the cage the queen is in, and fill the hollow with candy, such as is used in shipping queens, having the plug about 1½ inches long, so the bees will be about two days in eating out the candy, and liberating the queen. This does away with all desire for swarming from that colony."

Feeding Medicated Syrup to Bees.

It is time to feed bees in the central and northern States; and if feeding has to be resorted to I would strongly urge medicating all the syrup with the naphthol-beta solution. Such a precaution becomes exceedingly necessary just now when foul and black brood have been extending their ravages in every direction. The medicated syrup will not kill the spores of either disease, but it will destroy the bacilli as soon as the spores develop into the active stage.

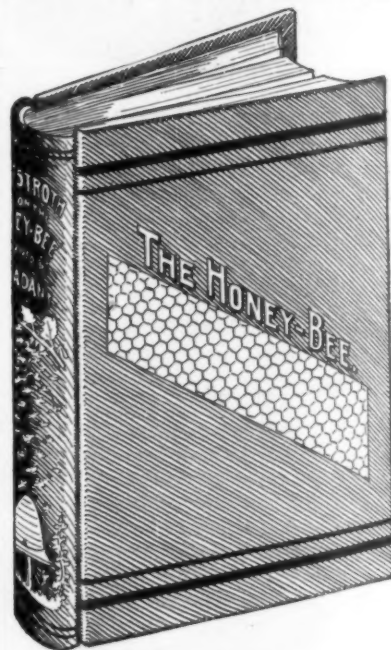
Into an eight-ounce bottle (half pint) empty a one-ounce package of naphthol-beta in the form of a fine white power. Pour in just enough wood or common alcohol to dissolve the powder, and fill the bottle full. This quantity of chemical in solution is just right for 140 pounds of sugar dissolved in 140 pounds of water. To mix, put 140 pounds of water in a common honey-extractor; then add sugar gradually, dipperful by dipperful, until there are about 140 pounds of sugar. While the sugar is being added, keep turning the handle of the extractor so there will be a rapid agitation and thorough mixing. After the sugar is all in, keep on turning the handle until it is all dissolved, and, last of all, pour in the naphthol-beta solution already referred to. Stir this into the mixture thoroughly by running the extractor for several minutes longer.

In handling the naphthol-beta solution, be

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39A2t R. R. No. 1, BARABOIS, WIS.
Please mention Bee Journal when writing.

careful not to get it on the fingers; but after it is mixed with the syrup, it is perfectly harmless to man or bees. Naphthol-beta can be obtained for 25 cents an ounce; and at this low price no bee-keeper can afford not to take the precaution.

In making the syrup we recommend half sugar and half cold water. There is no need of heating, provided thorough stirring is used, either with a stick and tub, or, better still, in an extractor in the manner explained. We have fed a half-and-half mixture for several years; and since using it we have never had any trouble from its going back to sugar in the cells after the bees have put it into the comb. For very late feeding it may be advisable to use one part of water and two of sugar.—Gleanings in Bee-Culture.

Honey-Cakes.

It seems a good thing that fashion magazines of wide circulation should help to increase the use of honey. The following recipe is from the Delineator:

Mix thoroughly one quart of honey, $\frac{1}{2}$ pound pulverized sugar, $\frac{1}{2}$ pound fresh butter, juice of 2 oranges; then stir in gradually enough sifted flour to make a dough stiff enough to roll out easily. Turn out on a molding-board; beat well for a few minutes with a rolling-pin; then roll out into sheets half an inch thick; cut into round cakes, and bake in shallow buttered pans.

CONVENTION NOTICES.

Illinois.—The annual meeting of the Northern Illinois Bee-Keepers' Association will be held in the Court House in Rockford, Ill., on Tuesday and Wednesday, Oct. 15 and 16, 1901. All interested in bees are invited to attend.
Rockford, Ill. B. KENNEDY, Sec.

Utah.—There will be a meeting of the Utah Bee-Keepers' Association in the City and County Building, Salt Lake City, Utah, Oct. 5, 1901, at 10 a. m., to which all are cordially invited. Kindly inform other bee-keepers and send the addresses of your neighbor bee-keepers. We also desire the address of all county bee-inspectors. A full program in the interest of the industry will be presented. Send in questions. Among other questions it is desired to consider, is a union of interest in the purchase of supplies and the disposing of bee-products at profitable rates. Yours in behalf of the bee-keepers,
E. S. LOVESY, Pres., J. B. FAGG, Sec.,
Salt Lake City. East Mill Creek.

100 Full Swarms Bees at \$1.25 a Swarm. With good laying queen in shipping-box, no hive or combs; hive extra, \$1.00. These bees are for feeding up for winter to make colonies, or to strengthen weak colonies, or may be used for requeening. Full directions given. Orders filled as received. Write for further information regarding these bees. Address,
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	5lb	10lb	25lb	50lb
Sweet Clover (white).....	\$.60	\$1.00	\$2.25	\$4.00
Sweet Clover (yellow).....	.90	1.70	4.00	7.50
Alsike Clover.....	.90	1.70	3.75	7.00
White Clover.....	1.00	1.90	4.50	8.50
Alfalfa Clover.....	.80	1.40	3.25	6.00

Prices subject to market changes.

Single pound 5 cents more than the 5-pound rate, and 10 cents extra for postage and sack.

Add 25 cents to your order, for cartage, if wanted by freight, or 10 cents per pound if wanted by mail.

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Wanted.

Comb and Extracted Honey. Will buy your honey no matter what quantity. Mail sample of extracted, state quality of comb honey and price expected delivered in Cincinnati. I pay promptly on receipt of goods. Refer you to Brighton German Bank, this city.
C. H. W. WEBER.
2146-2148 Central Ave., CINCINNATI, OHIO.
29Atf Please mention the Bee Journal.

Wanted To Buy Honey
What have you to offer and at what price?
34Atf **ED WILKINSON, Wilton, Wis.**
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Wanted Fancy White Comb Honey in no-drip cases; also Extracted Honey. State price, delivered. We pay spot cash. **FRED W. MUTH & Co., Front & Walnut Sts., Cincinnati, Ohio.** Reference—German National Bank, Cincinnati.
28A17t Please mention the Bee Journal.

WRITE US

If you have large or small lots of HONEY to sell.

State quantity, how put up, kind of honey, price expected, and, if possible, mail sample. We pay spot cash.
REFERENCE—Wisconsin National Bank.

E. R. Pahl & Co.

34Atf **MILWAUKEE, WIS.**
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Wanted Comb and Extracted Honey!
State price, kind and quantity.
R. A. BURNETT & CO., 199 S. Water St., CHICAGO
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Wanted—Honey.

Car Lots or otherwise; will pay highest market price, spot cash. Address, stating quantity, quality, and price desired at your station. Will send man to receive when lot is large enough to justify.
THOS. C. STANLEY & SON,
31A1f **FAIRFIELD, ILL.**
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HONEY AND BEESWAX

MARKET QUOTATIONS.

CHICAGO, Sept. 18.—No. 1 white comb honey is selling at 15c per pound, with occasionally a little more being obtained for fancy, that which does not grade No. 1 selling at from 13c@14c, with the light amber at 12c@13c; dark honey of various kinds selling at 10c@11c. Extracted in moderate demand at from 5 $\frac{1}{2}$ c@6 $\frac{1}{2}$ c for the various grades of white; some fancy white clover and basswood bringing 7c; light amber ranging from 5 $\frac{1}{2}$ c@5 $\frac{3}{4}$ c; dark at 5 $\frac{1}{2}$ c. Beeswax firm at 28c@30c.
R. A. BURNETT & Co.

CINCINNATI, Aug. 10.—The honey market is rather dull on account of the warm weather. Extracted sells only to manufacturers from 5c@6c; better grades alfalfa water-white from 6c@7c; white clover from 8c@9c. Fancy white comb honey sells from 13 $\frac{1}{2}$ c@15 $\frac{1}{2}$ c.
C. H. W. WEBER.

BOSTON, Sept. 14.—Honey is coming forward in fair quantities and the demand is good, considering the warm weather we are having. Strictly fancy in cartons we quote at 16c; A No. 1, 15c; No. 1, 14c@15c. Very little No. 2 being received.
BLAKE, SCOTT & LEE.

ALBANY, N. Y., Sept. 19.—We quote: Fancy white comb, 16c; No. 1, 15c; mixed, 13c@14c; No. 1 buckwheat or amber, 12c@13c. Extracted, white, 7c@7 $\frac{1}{2}$ c; light, 6 $\frac{1}{2}$ c@7c; dark, 5 $\frac{1}{2}$ c@6c. Beeswax, 28c@29c.
H. R. WRIGHT.

OMAHA, Aug. 8.—New comb honey is arriving by express in small quantities from Iowa and Colorado, and selling at \$3.50 per case in a retail way. California extracted honey is being offered carlots at 4 $\frac{1}{2}$ c@4 $\frac{3}{4}$ c per pound, f.o.b. California shipping-points, but we have not heard of any sales having been made thus far. The production of extracted honey seems to be quite large this year in Colorado, Utah and California.
PEYCKE BROS.

NEW YORK, Sept. 10.—Comb honey is now beginning to arrive in large quantities, and, as a rule, quality is fine. The demand is good, and we quote as follows: Fancy white, 14c@15c; No. 1, 13c; No. 2, 12c; and amber, 11c. No buckwheat is on the market as yet, but are expecting same within a week or so. Extracted is selling slowly, with plenty of supply, at 5c@5 $\frac{1}{2}$ c, according to quality, and Southern in barrels at from 55c@65c per gallon. Beeswax dull at 27c.
HILDEBRATH & SMOLEKEN.

DES MOINES, Aug. 7.—There is very little doing here in new crop of honey. Some small lots of near-by produced comb honey are on the market and selling in a retail way at \$3.50 to \$3.75 per case. We do not look for much trade in this line before Sept. 1. Our market does not consume a great deal of extracted honey.
PEYCKE BROS. & CHANEY.

DETROIT, Aug. 12.—Fancy white comb honey, 14c@15c; No. 1, 13c@14c; no dark to quote. Extracted, white, 6c@7c. Beeswax, 25c@26c.
M. H. HUNT & SON.

BUFFALO, Aug. 10.—Quite a good demand for fancy honey, 16c@17c, and lower grades, 12c@14c; old neglected. Advise moderate shipments only of new as yet.
BATTERSON & Co.

SAN FRANCISCO, Sept. 4.—White comb, 10c@12 cents; amber, 7c@9c; dark, 6c@7 $\frac{1}{2}$ cents. Extracted, white, 5 $\frac{1}{2}$ c@—; light amber, 4 $\frac{1}{2}$ c@—; amber, 4c@—.
Beeswax, 26c@28c.

Arrivals and spot offerings are of rather moderate volume, but there is as much or more on market than can be conveniently or advantageously placed. To secure liberal wholesale custom, prices would have to be shaded in favor of buyers. In a small way for especially desirable lots slightly higher figures than are quoted are realized.

KANSAS CITY, Sept. 14.—Up to the present time only small lots of new comb honey have been on the market, and these met with ready sale on the basis of 15c@16c per pound for fancy white. For next week heavier receipts are expected and quotations are issued at \$3.10@3.25 per case for large lots, which would be equal to about 14c@14 $\frac{1}{2}$ c; the demand being quite brisk, a firm market is anticipated. Inquiries for extracted are a little more numerous, but large buyers still seem to have their ideas too low. In a small way 5 $\frac{1}{2}$ c@6c is quotable.
PEYCKE BROS.

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RED CLOVER QUEENS

BLACK ROCK, N. Y., Sept. 3, 1901.

FRIEND ERNEST:—I will try and tell you what you want to know about that queen. I got her of you in 1899 as a premium with GLEANINGS. I never saw a small colony of bees build up as that one did. In the spring of 1900 they came out in fine shape, wintered perfect. I raised them up in May and gave them 8 frames more so the queen would not want for room. I never saw such a colony of bees as they were in June, and they were actually storing honey when other bees in my yard were starving. No! they were not robbing. I never saw those two best colonies of mine trying to rob. THEY CERTAINLY WORK ON RED CLOVER. This is no guesswork, as I have seen them. As you know, the past two seasons have been very poor, and what honey my bees did get in 1900 candied soon after cold weather set in. I packed this colony in a chaff hive and left them out, thinking that such a strong colony would winter perfect. The snow came on the middle of November, and those poor bees never a fly until the last of March or the first of April. When warm weather at last came I thought they were dead, as they did not seem to be flying much, so I did not pay any attention to them until in June. I noticed they were working a little, so I opened up the hive and found them in the upper story. I took the lower story out and left them in the one body. The queen was laying nicely, and I thought they would make a good colony to winter. Along the last of July I noticed that they needed more room. I gave them a super, 24 boxes, and in a few days they had it full. They have made 72 boxes of as nice honey as you ever saw, and are drawing out some starters now, Sept. 2.

Very truly yours,

GEO. B. HOWE.

Prices of Red Clover Queens.

Gleanings in Bee-Culture 1 year and Untested Queen	\$2.00
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